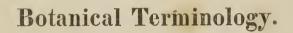




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BOTANICAL TERMINOLOGY;

OR,

A POCKET COMPANION

FOR

STUDENTS OF BOTANY:

BEING

A CONCISE EXPLANATION OF THE TERMS EMPLOYED

IN THE

CLASSIFICATION AND DESCRIPTION

OF THE

VEGETABLE KINGDOM.

BY JOHN EBERLE, M. D.

PHILADELPHIA:

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DEAR SIR,

Suffer me to inscribe this little volume to you, as a mark of my great personal esteem for you, as well as of the high respect I entertain for your talents and acquirements.

JOHN EBERLE.



ADVERTISEMENT.

THERE is no convenient pocket volume, in the English language, which contains a concise explanation of the various terms employed in the classification and description of plants. Believing that such a book will be useful to the Botanical Student, I offer the following pages to the public, in the hope that it may answer the purpose for which it is intended. The plan of arrangement I have adopted, is nearly that of Forster's Enchiridion Historia Naturalis, I have been studiously concise, in the explanation of the terms, in order that the volume might not become too bulky. The Index, which is affixed to it, will make the reference convenient.



BOTANICAL TERMINOLOGY.

1. RADIX, the root; the organ nourishing the plant.

In duration, it is

- 2. Annua, annual; living only one year or summer. ①
- 3. Biennis, biennial; living two years only, producing flowers and fruit the second summer. 3
- 4. Perennis, perennial; living and blossoming through many succeeding seasons. 21

In form, the root is

- Fibrosa, fibrous; consisting entirely of radical fibres.
- 6. Ramosa, branched; subdivided into lateral branches.
- 7. Fusiformis, spindle-shaped; thick above, and tapering downwards.
- Præmorsa, bitten or abrupt root; ending bluntly, as if it were bitten off.
- 9. Repens, creeping; branching off horizontally, putting forth fibres.
- 10. Articulata, jointed; intercepted with joints.
- 11. Dentata, moniliform; formed out of a number of knobs or joints, strung together like beads.
- 12. Globosa, globular; roundish, with lateral fibres.
- 13. Tuberosa, tuberous, knobbed; fleshy knobs, collected into a bunch; as the potatoe.
- 14. Fascicularis, fasciculated; fleshy parts connected by sessile bases into a bunch.
- 15. Palmata, palmate; fleshy, and irregularly lobed.
- 16. Bulbosa, bulbous; a round root, either solid, or composed of concentric layers.

In its direction, the root is

17. Horizontalis, horizontal; extending itself under the surface of the ground horizontally.

18. Perpendicularis, perpendicular; running directly

downwards.

19. TRUNCUS, the stem or trunk; supporting the leaves and fructification.

The species of trunks are

- 20. Caulis, stem or stalk, supporting branches, leaves, and fructification.
- 21. Culmus, culm, or straw; a stem peculiar to the grasses.
- 22. Scapus, scape; a stem elevating the flowers, but not the leaves.
- 23. Stipes, stipe; a stem that passes into a leaf; the base of a frons.

In duration, the stem is

- 24. Herbaceus, herbaceous; annual; not ligneous.
- 25. Suffruticosus, the base of the stem persisting, the branches dying off annually.
- 26. Fruticosus, shrubby; consisting of many perennial stems.
- 27. Arboreus, one single perennial trunk.
- 28. Solidus, solid; compact, or solid internally.
- 29. Inanis, containing a spungy medulla.
- 30. Fistulosus, fistulous or hollow.

With respect to direction, the stem is

- 31. Erectus, upright; rising nearly perpendicularly.
- 32. Strictus, straight; perfectly perpendicular, without flexure.
- 33. Rigidus, rigid or inflexible; incapable of being bent.
- 34. Laxus, flexile; easily bent.

- 35. Incurvatus, incurved; nodding inwards.
- S6. Obliques, oblique; receding from a horizontal or perpendicular line.
- 37. Adscendens, adscending; the base procumbent, the top bending in an arch upwards.
- 38. Declinatus, declining in an arch, so as to have the convex side above.
- S9. Nutans, nodding; reflected outwards, or towards the horizon at the top.
- 40. Diffusus, spreading; the branches extended loosely.
- 41. Procumbens, procumbent; prostrate, or leaning upon the earth.
- 42. Stoloniferous, shoots springing up from roots or stumps.
- 43. Surmentosus, trailing; a creeping stem, with radicating joints.
- 44. Repens, creeping; resting upon the earth, and giving out radical fibres.
- 45. Radicans, climbing; climbing up objects by means of lateral radicules.
- 46. Geniculatus, jointed; intercepted with joints.
- 47. Flexuosus, zig-zag; forming angles alternately from right to left, and from left to right.
- 48. Scandens, climbing; supporting itself by other bodies, either with tendrils or adhesive fibres.
- 49. Volubilis, winding; ascending spirally around some other body.
- 50. Volubilis dextrorsum, ()) winding from right to left.
- 51. Volubilis sinistrosum, (C) winding from left to right.

In shape, the stem is

- 52. Teres, round; destitute of angles.
- 53. Semiteres, roundish; irregularly round.
- 54. Compressus, flattened on two opposite sides.

- 55. Anceps, two-edged; two acute angles opposite.
- 56. Angulatus, angular; a stem of more than two angles, the sides being longitudinally excavated.
- 57. 3-6 gonus, 3-6 angular, from 3-6 prominent longitudinal angles.
- 58. 3-5 queter, 3-5 sided, from 3-5 flattened sides, the angles acute.
- 59. Alatus, winged; the angles extended into flat leafy
- 60. Sulcatus, furrowed; grooved with parallel furrows.
- 61. Nodosus, with protuberant joints.
- 62. Geniculatus, with joints not protuberant.
- 63. Articulatus, with contracted joints.

In regard to covering or vestiture, the stem is

- 64. Nudus, naked; destitute of leaves, scales, &c.
- 65. Aphyllus, leafless; destitute of leaves.
- 66. Foliatus, leafy; furnished with leaves.
- 67. Vaginatus, sheathed; surrounded with the sheaths of leaves.
- 68. Squamosus, scaly; covered with scales.
- 69. Impricatus, tiled; covered with scales, as if tiled.

The surface of the stem is

- 70. Suberosus, suberous or corky; covered with a corky substance.
- 71. Rimosus, cleft; fissures produced spontaneously in the external bark.
- 72. Tunicatus, tunicated; surrounded with a membraneous covering.
- 73. Lævis, smooth and even, opposed to all roughness and inequality whatever.
- 74. Nitidus, polished, smooth and shining.
- 75. Striatus, striated; marked with fine parallel lines.
- 76. Sulcatus, furrowed, with deeper lines.

- 77. Glaber, smooth; opposed to all kinds of hairiness or pubescence.
- 78. Scaber, rough to the touch, from small rigid inequalities.
- 79. Muricatus, covered with a great number of awlshaped points, not rigid.
- 80. Tomentosus, downy; covered with interwoven hairs, scarcely conspicuous.
- 81. Villosus, shaggy; covered with soft hairs.
- 82. Hispidus, bristly; covered with short rigid hairs.
- 83. Aculeatus, prickly; armed with sharp scales or prickles.
- 84. Spinosus, thorny; armed with thorns.
- 85. Urens, covered with very minute stings, as in the nettle, (urtia dioica.)
- 86. Stipulatus, armed with scales or stipulæ.
- 87. Membranaceus, membranous; made even or flat in the manner of a leaf.
- 88. Bulbiferus, bearing protuberances.
- 89. Viscidus, viscid; covered with a clammy juice.
- 90. Papillosus, papillose; covered with soft tubercles.
- 91. Verrucosus, warty.
- 92. Hirtus, s. pilosus, hairy, as Salvia pratensis.
- 93. Lanatus, woolly; as in common Mullein, (verbascum thapsus.)
- 94. Incanus, hoary; sometimes from close silky hairs, and sometimes from a scaly mealiness.
- 95. Glaucus, covered with a sea-green mealiness, which is easily rubbed off.
- 96. Maculatus, spotted.

In structure or composition, the stem is

97. Simplicissimus, very simple, with scarcely any branches.

- 98. Simplex, simple, extended in a continued series to the top.
- 99. Articulatus, jointed, as in the Indian figs, (cactui.)
- 100. Prolifer, emitting branches only out of the centre of the top.
- 101. Dichotomus, regularly and repeatedly divided into pairs.
- 102. Brachiatus, the branches spreading in four different directions, crossing each other alternately.
- 103. Subramosus, with but few lateral branches.
- 104. Ramosus, branched; having many lateral branches.
- 105. Ramosissimus, many branches issuing without order from the trunk.
- 106. Virgatus, twiggy; with unequal slender twigs or branches.
- 107. Paniculatus, panicled; the branches divided variously without order.
- 108. Fastigatus, fastigate; branches of equal altitude, forming a flat summit.
- 109. Patens, spreading; branches forming acute angles with the stem.
- 110. Divaricatus, divaricate; stem forming an obtuse angle with the branches.
- 111. Determinate ramosus, abruptly branched, each branch after flowering producing fresh shoots in a circular order, just below the origin of the flowers.
- 112. RAMI, the branches; parts of the stem.

In point of arrangement among themselves, they are

- 113. Alterni, alternately branched.
- 114. Distichi, two-ranked, the branches spreading in two horizontal directions.
- 115. Sparsi, situated without any regular order.
- 116. Conferti, many branches, closely pressed together, so as almost to hide the stem.

117. Oppositi, placed oppositely by pairs.

118. Verticilati, many branches surrounding the stem at a joint in the form of a whirl.

119. Erecti, rising almost perpendicularly.

120. Coarctati, pressing together at the top.

121. Divergentes, diverging from the trunk in a right angle.

122. Divaricati, issuing from the stem, under an acute angle.

123. Deflexi, declining in an arch.

124. Reflexi, hanging perpendicularly.

125. Retroflexi, bent in various directions, in a zig-zag manner, (horsum vorsum.)

126. Fulcrati, furnished with props or fulcri.

In height, the stem is

127. Longus, long.

128. Brevis, short.

129. Patens, spreading.

130. FOLIA, the leaves; the organs of motion and respiration of plants.

Leaves with respect to the place of the plant to which they are connected, are

131. Seminale, seminal; the first leaves of a plant, (denominated, on their first appearance, cotyledons,) arising immediately from the seeds.

132. Radicale, radical; arising immediately from the

133. Caulinum, cauline; stem-leaves, growing on the stem.

134. Rameum, branch-leaves; frequently differing from, those of the stem.

135. Axilare, growing out from under the base of a branch.

136. Florale, floral leaf, next the flower.

In respect to position among themselves, leaves are

- 137. Alterna, alternate leaves, standing solitarily on the stem and branches.
- 138. Disticha, two ranked; the branches spreading in two horizontal directions.
- 139. Bifaria, leaves inserted into two opposite sides of a branch only.
- 140. Sparsa, disposed on the branch or stem irregularly.
- 141. Conferta, many leaves, so as almost wholly to hide the branch or stem.
- 142. Imbricata, one leaf overlapping another about half its length.
- 143. Fasciculata, many leaves inserted into the same point, so as to form a bunch or tassel.
- 144. Bina, Terna, Quaterna, Quina, Sena, &c. expressing the number of leaves inserted at one knob, joint, or spot of a branch.
- 145. Confluentia, united to each other at the base.
- 146. Approximata, bending upwards, so as to approach each other closely.
- 147. Remota, separated, by considerable distances, from each other.
- 148. Opposita, placed oppositely, by pairs.
- 149. Decussata, decussated; alternately crossing each other by pairs.
- 150. Secunda, unilateral, leaning all towards one side.
- 151. Stellata, sive verticillata, whorled; several leaves growing in a circle around the stem.

In direction, the leaf is

- 152. Erectum, upright, forming a very acute angle with the stem.
- 153. Strictum, entirely perpendicular, without flexure.
- 154. Rigidum, rigid; not bending easily.

155. Adpressum, close-pressed to the stem.

156. Patens, spreading, forming a moderately acute angle with the stem.

157. Horizontale sive patentissima, spreading out horizontally.

158. Assurgens, bent upwards in an arch.

159. Reclinatum, inclining in an arch, so that the arch is lower than the base of a leaf, the point rising a little higher.

160. Revolutum, rolled into a curl.

161. Recurvatum, curved backwards, so that the arch turns upwards.

162. Dependens, pointing directly to the earth.

163. Obliquum, twisted, so that part of the leaf is vertical, the other horizontal.

164. Adversum, turning the upper surface to the sun.

165. Verticale, perpendicular; both sides at right angles with the horizon.

166. Resupinatum, reversed; the upper surface being turned downward.

167. Submersum, plunged under water.

168. Natans, floating on the surface of the water.

169. Emersa, raised above the water, as the leaves accompanying the flowers.

170. Radicans, radicating, or giving out roots.

171. Depressa, radical leaves pressed close to the ground.

In regard to insertion, the leaf is

172. Petiolatum, leaves on foot-stalks; petiole inserted into the base of the leaf.

173. Peltatum, peltate, petiole inserted into one of the surfaces of the leaf.

174. Sessile, sessile, a leaf inserted immediately into the stein, &c. without a foot-stalk.

- 175. Adnatum, the upper surface of the leaf connected with the stem.
- 176. Coadunata, many leaves conate with each other, (145.)
- 177. Decurrens, decurrent, running down the stem in a leafy border, or wing.
- 178. Amplexicaule, stem-clasping; surrounding the stem with the base.
- 179. Connata, connate, united at their base.
- 180. Perfoliatum, perfoliate; when the stem runs through the leaf.
- 181. Vaginatum, sheathing the stem, with the base of the leaf.
- 182. Equitantia, equitant; disposed in two opposite rows, and clasping each other.
- 183. Floriferum, flower-bearing; when flowers grow out of the disc of the leaf.

With regard to form, the leaf is

- 184. Subrotundum, roundish.
- 185. Orbiculatum, a circular leaf, equal in breadth and length, with an even circular circumference.
- 186. Ovatum, egg-shaped, ovate, the base rounded and broader than the apex.
- 187. Obovatum, obovate; of the same figure, with the broader end uppermost.
- 188. Ovale, elliptical, oblong round, both extremities rounded by equal segments of a circle.
- 189. Oblongum, oblong, three or four times as long as broad.
- 190. Cuneiforme, wedge-shaped, gradually tapering towards the base, the summit abrupt.
- 191. Spatulatum, spatulate; roundish, tapering into an oblong base.
- 192. Rotundatum, free from angles.

- Lanceolatum, lanceolate; narrow and oblong, tapering towards each end.
- 194. Lineare, linear; narrow, and of equal breadth throughout.
- 195. Acerosum, needle-shaped; linear, acute and rigid; evergreen.

In respect to the angles, the leaf is

- 196. Integrum, entire; undivided, free from all indentations or fissures.
- 197. Triangulare, triangular; having three prominent angles.
- 198. Quadrangulare, four angular; with four prominent angles.
- 199. Quinquangulare, with five angles.
- 200. Deltoideum, trowel-shaped or deltoid, having three angles, of which the terminal is much further from the base than the lateral ones.
- 201. Rhombeum, rhomboid, or diamond-shaped.
- 202. Trapeziforme, in the form of a trapezium.

In respect to the Sinuses, the leaf is

- 203. Cordatum, heart-shaped; ovate, hollowed out at the base.
- 204. Reniforme, kidney-shaped; a short, broad, roundish leaf, whose base is hollowed.
- 205. Lunatum, crescent-shaped, like a half moon, whether the points are directed towards the stalk, or from it.
- 206. Sagittatum, arrow-shaped, triangular, hollowed out very much at the base.
- 207. Hastatum, halberd-shaped; triangular, hollowed at base, and sides bulging out.
- 208. Runcinatum, runcinate; cut into transverse segments, pointing backwards.

209. Panduriforme, fiddle-shaped; oblong, the sides being contracted near the base.

210. Fissum, cloven, divided by fissures whose margins are straight.

211. Lobatum, lobed, divided into rounded segments.

212. Bifidum, trifidum, bi-cleft, tri-cleft.

213. Partitum, divided nearly to the base.

214. Palmatum, palmate; cut in several oblong, nearly equal segments.

215. Lyratum, lyrate, cut into several transverse segments, gradually larger towards the extremity of the leaf, which is rounded.

216. Pinnatifidum, pinnatified; cut transversely into parallel segments.

217. Sinuatum, sinuated; cut into wide rounded sinuosities.

218. Laciniatum, cut into various indeterminate parts.

219. Squarrosum, divided into elevated segments, not parallel to the surface.

220. Pectinatum, pinnate, with segments remarkably narrow and parallel, like the teeth of a comb.

221. Inæquale, unequal, sometimes called oblique, the two halves of the leaf being unequal in dimensions, and their bases not parallel.

222. Bipinnatifidum, doubly pinnatified.

223. Incisum, cut; nearly synonymous with laciniatum.

The leaf, in respect to its margin, is

224. Integerrimum, an entire leaf, the margin being an even line.

225. Crenatum, notched or crenate; the teeth being rounded, and not directed towards either end.

226. Serratum, serrated; the teeth sharp, pointing towards the extremity.

227. Ciliatum, fringed; bordered with parallel hairs.

- 228. Dentatum, toothed, margin beset with spreading pointed teeth.
- 229. Spinosum, spinous, beset with prickles.
- 230. Cartilaginosum, cartilaginous, margin hard and horny.
- 231. Repandum, wavy, bordered with minute angles and small segments of circles, though even.
- 232. Lacerum, margin cut into irregular segments, exhibiting a lacerated appearance.
- 233. Erosum, jagged, irregularly cut or notched.
- 234. Inerme, unarmed; opposed to spinous.
- 235. Serrulatum, minutely serrated, the teeth being very fine.
- 236. Revolutum, revolute; the margin rolled backward.
- 237. Involutum, involute; the reverse of the preceding.
- 238. Conduplicatum, folded; the margins being brought together in a parallel direction.

In point of termination, the leaf is

- 239. Folium Truncatum, an abrupt leaf, terminated by a transverse line.
- 240. Emarginatum, emarginate, having a notch at the summit of the leaf.
- 241. Retusum, retuse, terminating in an obtuse notch.
- 242. Præmorsum, jagged-pointed, blunt with many irregular notches.
- 243. Acutum, sharp, ending in an acute angle.
- 244. Acuminatum, ending in an awl-shaped point.
- 245. Cuspidatum, ending in a sharp pointing prickle.
- 246. Mucronatum, tipped with a rigid spine or thorn.
- 247. Cirrhosum, tipped with a tendril.

The surface of the leaf is

- 248. Nudum, destitute of hairs or bristles.
- 249. Glabrum, smooth.

- 250. Nitidum, shining with smoothness.
- 251. Lucidum, lucid, semi-transparent.
- 252. Coloratum, coloured, of any other colour than green.
- 253. Neruosum, ribbed, when they extend in simple lines from the base to the point.
- 254. Trinerve, three-ribbed, having three ribs, all distinct from the base, and unconnected with the margin.
- 255. Triplinerve, triply-ribbed, three ribs branching off from the main one above the base.
- 256. Variegatum, irregularly blotched with different colours.
- 257. Enerve, wanting nerves.
- 258. Lineatum, with depressed nerves.
- 259. Striatum, lightly furrowed with parallel lines.
- 260. Sulcatum, with deeply furrowed lines.
- Venosum, veiny; the nourishing vessels forming a kind of net-work.
- 262. Rugosum, rugged; when the veins are tighter than the surface between them, causing the latter to swell into inequalities.
- 263. Bullatum, blistery; this is only a greater degree of the last.
- 264. Lacunosum, the surface depressed between the veins.
- 265. Avene, veinless; having no veins.
- 266. Papillosum, covered with little fleshy tubercles.
- 267. Papulosum, covered with little vesicles.
- 268. Viscidum, smeared over with a viscid humour.
- 269. Villosum, covered with soft hairs.
- 270. Tomentosum, covered with interwoven hairs, not conspicuous.
- 271. Sericeum, covered with a soft silky hair.
- 272. Lanatum, woolly, as in Mullein, (verbascum thapsus.)

- 273. Barbatum, bearded, covered with small parallel hairs.
- 274. Pilosum, hairy, covered with distinct long hairs.
- 275. Scabrum, rough, from many small rigid prominences.
- 276. Hisbidum, bristly, covered with rigid bristles.
- 277. Aculeatum, armed with thorns or prickles.
- 278. Strigosum, with lanceolate rigid thorns.

The leaf, in regard to its expansion or superficies, is

279. Planum, the surface being evenly expanded.

- 280. Canaliculatum, channelled, having a longitudinal furrow on its upper side.
- 281. Concavum, concave, depressed along the middle of the leaf.
- 282. Convexum, convex, the upper surface longitudinally convex.
- 283. Cucullatum, the margins of the leaf doubled up, so as to meet at the base, but spreading at the point, (hooded.)
- 284. Plicatum, folded; the disc of the leaf folded into acute plaits.
- 285. Undatum, waved; the disc curved into obtuse plaits.
- 286. Crispum, curled; the margin being expanded more than the disc, giving the leaf an elegantly curled and twisted appearance.
- 287. Appendiculatum, furnished with an appendage not essential to the leaf, (Dionæa.)

With regard to substance, the leaf is

- 288. Membranaceum, membranous, of a thin and pliable texture.
- 289. Scariosum, scariose, of a hard, thin, and dry substance, like parchment.
- 290. Gibbum, gibbous, convex on one or both sides.
- 291. Teres, cylindrical.

- 292. Depressum, depressed, the disc being more flattened than the sides.
- 293. Compressum, pulpy, the sides being more flattened than the disc.
- 294. Carinatum, keeled, the back being longitudinally prominent.
- 295. Compactum, consisting of solid substance.
- 296. Tubulosum, concave, or empty internally.
- 297. Pulposum, internally composed of a pulpy or tenacious substance.
- 298. Carnosum, fleshy, composed of a fleshy and solid substance.
- 299. Triquetrum, a three-sided awl-shaped leaf.
- 300. Anceps, two-edged.
- 301. Lingulatum, linear, fleshy, convex, inferiorly.
- 302. Ensiforme, two-edged, tapering gradually to the point, slightly convex on both surfaces.
- 303. Subulatum, awl-shaped; linear at the base, and tapering to the point.
- 304. Acinaciforme, scimitar-shaped, compressed, with one thick and straight edge, the other thin and convex.
- 305. Dolabriforme, hatchet-shaped, compressed, with a very prominent dilated keel, and a cylindrical base.

In measure, the leaf is

- 306. Brevissima, very short.
- 307. Longissima, very long, in proportion to the stem or a joint.

In point of duration, the leaf is

- 308. Deciduum, deciduous, falling off at the end of summer.
- 309. Caducum, caducaus, falling soon, before the approach of winter.

- 310. Persistens, persisting, not falling after the expiration of summer.
- 311. Perenne, perennial, remaining green for some years.
- 312. Sempervirens, evergreen, remaining green through many years.

With regard to composition, a leaf is

- 313. Compositum, compound leaf, consisting of two or more leaflets, connected by a common foot-stalk.
- 314. Articulatum, a jointed leaf, one leaflet growing out of the summit of another.
- 315. Digitatum, digitate or fingered, petiole simple, uniting many leaflets at the top.
- 316. Congugatum, yoked, pinnate, with two lateral leaflets.
- 317. Binatum, binate, with only two terminal leaflets.
- 318. Pedatum, pedate, petiole divided, the insides of which alone connect many leaflets.
- 319. Pinnatum, pinnate, several leaflets proceeding laterally from one foot-stalk.
- 320. Bigeminatum, twice paired, and Tergeminatum, thrice paired.
- 321. Ternatum, ternate, with three leaflets.
- S22. Cum impari pinnatum, pinnate, with an odd or terminal leaflet.
- 323. Abrupte pinnatum, abruptly pinnate, without either a terminal leaf or tendril.
- 324. Cirrhosum, ending with a tendril instead of an odd leaflet.
- 325. Apposite pinnatum, when the leaflets are opposite, or in pairs.
- 326. Interrupte pinnatum, the principal leaflets ranged alternately, with an intermediate series of smaller ones, (as, potentilla anserina.)

- 327. Articulate pinnatum, jointly, with joints in the common foot-stalk.
- 328. Decursive, decurrent, the leaflets running down along the foot-stalk.
- 329. Lyrato pinnatum, in a lyrate manner, having the terminal leaflet largest, and the rest gradually smaller, as they approach the base.
- 330. Auriculatum, an eared leaf, furnished at its base with a pair of leaflets, sometimes distinct, and sometimes united with it.
- 331. Pinnatum verticilato, verticilate pinnate, the leaflets forming a whorl.

In regard to the different degrees of composition, the leaf is

- 332. Compositum, simply compound.
- 333. Decompositum, doubly compound.
- 334. Supradecompositum, thrice compound or more.
- 335. Biternatum, doubly ternate.
- 336. Bipinnatum, doubly pinnate.
- 337. FULCRA, or props, for the more convenient support of the plant, are,
- 338. Petiolus, foot-stalk; the support of the leaf.
- 339. Stipula, a scale placed at the base of the young petiole.
- 340. Cirrhus, thread-like spiral bands, by which the plant supports itself on other bodies.
- 341. Pubes, all roughness on the plant.
- 342. Arma, thorns or prickles, which prevent animals from feeding on them.
- 343. Bractea, leaf next the flower, generally differing from the other leaves.
- 344. Pedunculus, flower-stalk, a partial stem, elevating the flowers, not the leaves.

345. PETIOLUS, or leaf-stalk.

In shape, it is ..

346. Linearis, linear.

- 347. Alatus, winged, the sides being edged with a thin and flat border.
- 348. Clavatus, club-shaped, gradually becoming thicker towards the apex.
- 349. Membranaceus, flattened into a thin lamina.

350. Teres, cylindrical.

351. Semiteres, roundish, or irregularly cylindrical.

352. Triqueter, three-sided.

- 353. Canaliculatus, channelled, having a longitudinal groove on the upper side.
- 354. Cirrhifer, bearing tendrils, as in the common pea.
- 355. Scandens, climbing, performing the office of a tendril, as in the Clematis Virgin.

In point of size, the petiole is

- 356. Brevissimus, very short, bearing but a small proportion to the length of the leaf.
- 357. Brevis, short, not quite as long as the leaf.

358. Mediocris, being as long as the leaf.

- 359. Longus, long, exceeding the length of the leaf.
- 360. Longissimus, very long, being much longer than the leaf.

With regard to its insertion, the petiole is

- 361. Insertus, arising perpendicularly from the branch, or stem.
- 362. Decurrens, decurrent, running down the stem or branch with its base.
- 363. Amplexicaulis, stem-clasping, surrounding the branch with its base.
- 364. Appendiculatis, having little leafy appendages at

The direction of the petiole is

- 365. Erectus, (152.)
- 366. Patens, (156.)
- 367. Assurgens, (158.)
- 368. Recurvatus, (161.)

The surface of the petiole is

- 369. Glaber, smooth, (249.)
- 370. Aculeatus, armed with prickles, (277.)
- 371. Nudus, destitute of hairs or bristles, (248.)
- 372. Articulatus, jointed, (99.)
- 373. Spinescens, growing hard and prickly.

374. STIPULÆ, the stipulæ, or leafy appendages commonly at the base of the foot-stalk, are

- 375. Geminæ, two and two, by pairs.
- 376. Solitariæ, simple and scattered.
- 377. Nullæ, when they are wanting.
- 378. Laterales, inserted by the sides.
- 379. Extrafoliacæ, situated below the leaf.
- 380. Intrafoliacæ, situated above the leaf.
- 381. Oppositifoliæ, fixed into the side of a stem, opposite to a leaf.
- 382. Caducæ, falling at the approach of winter.
- 383. Persistentes, remaining after the leaves have fallen off.
- 384. Spinescens, hard and pointed.
- 385. Sessiles, sessile, fixed to the stem immediately by the base.
- 386. Adnatæ, the upper surface connected to the base of a branch.
- 387. Decurrentes, running down the stem.
- 388. Vaginantes, sheathing.
- 389. Subulatæ, awl-shaped.
- 390. Lanceolatæ, lance-shaped, lanceolate.

- 391. Sagittatæ, arrow-shaped, sagitate.
- 392. Lunatæ, lunate.
- 393. Erectæ, erect.
- 394. Patens, spreading, forming rather acute angles with the petiole.
- 395. Reflexæ, hanging down perpendicularly.
- 396. Integerrimæ, whole, not divided.
- 397. Serratæ, serrated or toothed.
- 398. Ciliatæ, ciliated or fringed, bordered with soft hairs.
- 399. Dentatæ, large teeth.
- 400. Fissæ, cleft, divided by deep and straight incisions.
- 401. Brevissimæ, much shorter than the petiole.
- 402. Mediocres, of the length of the petiole.
- 403. Longæ, exceeding the petiole in length.

404. CIRRHUS, the tendril; it is

- 405. Axillaris, axillary, growing out either from between a branch and the stem, or from between a petiole and the stem.
- 406. Foliaris, rising from a leaf.
- 407. Petiolaris, growing out of a petiole.
- 408. Peduncularis, growing out of a peduncle.
- 409. Simplex, undivided, simple.
- 410. Trifidus, divided into three parts.
- 411. Multifidus, divided many times.
- 412. Convolutus, twisted into rings or curls.
- 413. Revolutus, the spiral twisted backwards, from the middle part of it.

414. PUBES, pubescence, consists of

- 415. Pili, bristly excretory ducts of the plant; hairs.
- 416. Lana, closely seated, dense hairs, wool.
- 417. Barba, distinct parallel hairs.

- 418. Tomentum, hairs, scarcely conspicuous, interwoven with each other.
- 419. Strigæ, rigid and somewhat flattened hairs.
- 420. Setæ, rigid cylindrical hairs.
- 421. Simplices, simple, extending without division or curve.
- 422. Hamosæ, barbed, so as to stick readily to animals or cloths.
- 423. Ramosæ, subdivided, as it were, into branches.
- 424. Plumosæ, feathery.
- 425. Stellatæ, placed cross-wise.
- 426. Hami, prickles with curved points.
- 427. Glochides, prickles, the summits of which have many little teeth, pointing backwards.
- 428. Glandulæ, a little tumor discharging a fluid.
- 429. Utriculus, little vesicles filled with a secreted liquor.
- 430. These two last are either Foliacæ, Petiolares, Pedunculares, Stipulares, or Calycinæ, according to the place of their insertion.
- 431. Viscositas, of the quality of a viscid humour.
- 432. Glutinositas, of the quality of a lubricating humour.
- 433. ARMA, the arms; they are,
- 434. Aculei, sharp points or prickles, adhering to the bark of the plant only. They are—Recti, straight—Incurvi, bent inwards—Recurvi, bent outwards.
- 435. Furca, a prickle of the last kind, divided into many points or prickles.
- 436. Spina, a prickle, being a production from the wood of the plant.
- 437. The spine is Terminalis, fixed to the summit of the plant; Axilaris, Calycina, Foliaris, Simplex, according to the place of insertion.
- 438. Stimuli, little prickles, producing considerable irritation in the skin, as in the Urtica Dioica, or common nettle.

- 439. BRACTEÆ, leaves.
- 440. Colorata, coloured; being of any other colour than green.
- 441. Caducæ, falling off before the end of the summer.
- 442. Persistens, persistent; remaining after the summer is over.
- 446. Unæ, one; duæ, two; plures, many.
- 444. Coma, bracteæ, terminating the stem; very large.
- 445. PEDUNCULUS, peduncle, or flower-stalk.
- 446. Partialis, partial, bearing a few flowers on a common foot-stalk.
- 447. Communis, common to many flowers.
- 448. Pedicellus, peculiar to the flowers, united in a common peduncle.

In regard to insertion, the peduncle is

- 449. Radicalis, arising from the root.
- 450. Caulinus, cauline, inserted into the stem.
- 451. Rameus, inserted into a limb or branch.
- 452. Petiolaris, inserted into a leaf-stalk.
- 453. Cirrhiferus, arising from a tendril.
- 454. Terminalis, inserted into the top of a plant.
- 455. Axilaris, inserted into the fork, formed by a branch with the trunk.
- 456. Oppositi folius, inserted opposite to a leaf.
- 457. Lateri florus, flowers arising from one side of the peduncle only.
- 458. Supra foliaceus, placed in the surface of a leaf.

In position, the peduncle is

- 459. Alternas, alternate.
- 460. Sparsus, placed without order.
- 461. Oppositus, opposite, placed by pairs oppositely.

462. Verticillatus, verticilate, forming a whorl around the branch or stem.

In point of number, the peduncle is

- 463. Solitarius, solitary.
- 464. Geminatus, double.
- 465. Umbellula sessilis, many peduncles, arising out of the same centre, of equal length.

In direction, the peduncle is

- 466. Adpressus, pressed close to the stem.
- 467. Erectus, erect, rising almost perpendicularly.
- 468. Patens, forming an acute angle with the stem.
- 469. Cernuus, drooping, the top pointing towards the earth.
- 470. Nutans, nodding, the top bending downwards.
- 471. Flacidus, weak, so as to hang down, from the weight of the flower.
- 472. Strictus, straignt, without flexure.
- 473. Flexuosus, bent from flower to flower.
- 474. Retrofractus, bent downwards as with force.

In measure, the peduncle is

- 475. Brevis, short.
- 476. Brevissimus, very short.
- 477. Longus, long.
- 478. Longissimus, very long.

In structure, the peduncle is

- 479. Teres, round.
- 480. Triqueter, three-sided.
- 481. Tetragonus, four angular.
- 482. Filiformis, thread-like; of equal thickness throughout.

- 483. Attenuatus, gradually becoming thinner towards the top.
- 484. Clavatus, growing thicker towards the top.
- 485. Squamosus, covered with scales.
- 486. Nudus, naked.
- 487. Foliatus, leafy, furnished with leaves.
- 488. Bracteatus, furnished with bracteæ.
- 489. Geniculatus, intercepted with knobs.
- 490. Articulatus, the same as the foregoing.
- 491. INFLORESCENTIA is the mode in which the flower is fixed to the plant by means of the peduncle.
- 492. SPADIX, the receptacle of palms, and some other plants, proceeding from that species of Calyx which is called Spatha, or Spath; it is either branched (ramosus) as in palms; or simple (simplex) as in (arum triphyllum.)
- 493. CYMA, or Cyme, an aggregate flower, composed of several florets sitting on a receptacle, producing all the primary peduncles from the same point, the partial peduncles being scattered; all fastigate or forming a flat surface at the top.
- 494. UMBELLA, or Umbel; a receptacle stretched out into filiform proportionate peduncles from the same centre.
- 495. SPICA, alternate sessile flowers, inserted into a common simple peduncle.
- 496. AMENTUM, Ament, or Catkin, consists of a great number of chaffy scales, dispersed along a slender thread or receptacle.
- 497. STROBILUS, or strobile, formed out of an Ament, by the induration of its scales.

- 498. CORYMBUS, Corymb—" made up of a spike, whilst each flower is furnished with its proper foot-stalk or peduncle, in an elevated proportioned situation."
- 499. RACEMUS, Raceme, a peduncle furnished with lateral branches.
- 500. PANICULA, panicle, flowers scattered on peduncles variously divided.
- THYRSUS, a thyrse, a panicle contracted into an ovate form.
- 502. FASCICULUS, collecting together, several upright, parallel, fastigate approximating flowers.
- 503. CAPITULUM, or head; many flowers gathered into the shape of a ball.
- 504. VERTICILLUS, many flowers surrounding the stem, in the manner of a ring.
- 505. LATERIFLORA, many flowers inserted into the same side of a stem.
- 506. The VERTICILLUS is
- 507. Sessilis, without any manifest pedicles.
- 508. Pedunculatus, flowers supported by peduncles.
- 509. Involucratus, furnished with an involucrum.
- 510. Bracteatus, furnished with bracteæ.
- 511. CAPITULUM, the capital or head, is
- 512. Subrotundum, almost globular.
- 513. Globosum, perfectly globular.
- 514. Dimidiatum, round on one side, and flat on the other.
- 515. Foliosum, leaves intermixed with flowers.
- 516. Nudum, having neither leaves nor prickles.

- 517. SPICA, the spike, is
- 518. Simplex, undivided.
- 519. Composita, many small spikes inserted into a peduncle.
- 520. Ventricosa, the sides bulging out.
- 521. Cylindrica, cylindrical.
- 522. Interrupta, small alternate spikes placed at some distance from each other on a peduncle.
- 523. Imbricata, tiled; formed as it were of scales overlapping each other.
- 524. Articulata, jointed.
- 525. Ramosa, variously divided.
- 526. Linearis, linear.
- 527. Ciliata, edged with fine hairs.
- 528. Foliacea, separated by leaves.
- 529. Comosa, terminated with leaflets.
- 530. CORYMBUS, the corymb, is
- 531. Simplex, when each flower is furnished with its own peduncle.
- 532. Compositus, when each flower is elevated by its own pedicelus, or partial foot-stalk, and all inserted into a common peduncle.
- 533. THYRSUS, the thyrse, is
- 534. Nudus, naked.
- 535. Foliatus, clothed with leaves.
- 536. RACEMUS, the raceme, is
- 537. Nudus, naked.
- 538. Compositus, divided into many racemes.
- 539. Unilateralis, all the flowers inserted into one side.
- 540. Secundus, all the flowers leaning to one side.
- 541. Simplex, simple, undivided.
- 542. Foliatus, leafy.

- 543. Conjugata, two racemes originating from the same point.
- 544. Dependens, hanging downwards.
- 545. Erectus, upright.
- 546. FRUCTIFICATIO, the fructification, "the temporary parts of vegetables, dedicated to the business of generation." It is
- 547. Simplex, simple, consisting of few flowers.
- 548. Composita, compound; many little flowers running together.
- 549. The fructification consists of the following seven parts: Calyx, Corolla, Stamen, Pistillum, Pericarpium, Semen, Receptaculum.
- 550. CALYX, the flower cup, is defined by Linnæus, "the outer bark present in the fructification."
- 551. The species of calyx are seven. Perianthium, Involucrum, Amentum, Spatha, Gluma, Calyptra, Volva.
- 552. PERIANTHIUM, a calyx, contiguous to the flower. Its species are
- 553. Perianthium Fructificationis, including the stamens and germ.
- 554. P. Floris, containing the stamens, but not the germ.
- 555. P. Fructis, including the germ, but not the stamens.
- 556. P. PROPRIUM, peculiar to one flower.

The perianthium, with respect to the number of the leaves, is

- 557. Monophyllum, composed only of one leaf.
- 558. Polyphyllum, consisting of many leaves.

559. Diphyllum, Triphyllum, Tetraphyllum, &c. two, three, or four leaved.

The border of the perianth, is either

560. 2-5 fidum, 2 to 5 cleft.

561. 2-5 partitum, 2 to 5 parted.

562. Integrum, entire, that is, undivided.

In figure, the perianth is

563. Tubulosum, tubular.

564. Patens, spreading.

565. Reflexum, the leaves or edges reflected backwards.

566. Inflatum, hollow, like a little bladder.

567. Globosum, approaching to the figure of a globe.

568. Clavatum, club-shaped, thicker towards the top.

569. Erectum, upright.

In regard to proportion, the perianth is

- 570. Abreviatum, abreviated; shorter than the tube of the corolla.
- 571. Longum, long; longer than the tube of the corolla.
- 572. Mediocre, middle-sized; about the length of the tube of the corolla.

At the top, the perianth is

573. Obtusum, obtuse.

574. Acutum, acute.

575. Spinosum, spinous or thorny.

576. Aculeatum, prickly.

577. Acuminatum, acuminate.

In regard to equality, the perianth is

578. Æquale, equal; the segments being of the same size.

579. Inæquale, unequal; some of the segments smaller than others.

- 580. Lacinies alternis brevioribus; segments alternately shorter and longer.
- 581. Labiatum, lipped; segments irregular, formed into two lips.

With respect to margin, the perianth is

- 582. Integerrimum, very entire.
- 583. Serratum, serrated.
- 584. Ciliatum, ciliated, or edged with small hairs.

In situation, with respect to the germen, the perianth is

- 585. Superum, superior; when the germen is under the perianth.
- 586. Inferum, inferior; the germen being above the base of the perianth.

In duration, the perianth is

- 587. Caducum, caducous; falling as soon as the flower begins to open.
- 588. Deciduum, deciduous; falling off with the flower.
- 589. Persistens, permanent; not falling until the fruit has attained to maturity.

In respect to composition, the perianth is

- 590. Imbricatum, imbricate.
- 591. Squarrosum, squarrose, the scales spreading, and not closely laid over each other.
- 592. Turbinatum, top-shaped; inversely conical.
- 593. Calyculatum, a calyx, surrounded at the base with another smaller calyx; caliculate, or increased calyx.
- 594. Scariosum, tough, thin, and semi-transparent.

The perianth is also

- 595. COMMUNE, common, containing many congregated flowrets, as in the syngenesious plants.
- 596. The *INVOLUCRUM*, a species of calyx, remote from the flowers, chiefly restricted to the umbeliferous flowers. It is
- 597. Universale, universal; placed under the universal umbel.
- 598. Partiale, partial; placed under the partial or smaller umbel.
- 599. Proprium, proper; placed under some one flower.

In regard to number of leaves, the involucrum is

- 600. Monophyllum, Diphyllum, Triphyllum, &c. one leaved, two leaved, &c.
- 601. The GLUMA, the calyx of grasses; formed of valves embracing the seeds. It is
- 602. Uniflora, a one flowered glume.
- 603. Biflora, two flowered.
- 604. Triflora, Multiflora, three, &c. flowered.

In respect to the number of valves, the glume is

605. Univalvis, Bivalvis, Multivalvis, &c. one, two, or many valved.

The glume is also

- 606. Colorata, coloured; of any colour but green.
- 607. Glabra, smooth.
- 608. Hispida, hispid.
- 609. The ARISTA, of the glume, is a sharp point issuing from the glume of many grasses. The glume, in this respect, is
- 610. Mutica, awnless, without any point at the end.

611. Terminalis, an awn terminating the glume.

612. Dorsalis, placed on the back, or outside of the glume.

613. Recta, straight; rising perpendicularly from the

glume.

614. Tortilis, twisted like a rope, coiled.

615. Geniculata, bent like the knee-joint.

616. Recurvata, recurved, or bent back.

- 617. AMENTUM, the catkin, is either
- 618. Squamosum, scaly.
- 619. Nudum, not scaly, naked.
- 620. SPATHA, a calyx, that opens or bursts longitudinally, like a sheath. Its valves are
- 621. Univalvis, opening on one side only.
- 622. Bivalvis, opening on two sides.
- 623. Dimidiata, uncovering the fructification only at its lower side.
- 624. CALYPTRA, a species of calyx, peculiar to the mosses, covering the anthers, like a hood, or extinguisher. It is
- 625. Recta, straight; equal on every side.
- 626. Obliqua, oblique; bent on one side.
- 627. VOLVA, the calyx of the Fungi; it is membranaceus. It is
- 628. Approximata, placed near the cap or head of the fungus.
- 629. Remota, distant from the cap of the fungus.
- 630. COROLLA, the coral or blossom, "the inner bark present in the flower."

- 631. PETALA, "the leaves of the flower," the different parts of which are
- 632. Tubus, tube; the inferior tubular part of a monopetallous corolla.
- 633. Unguis, the claw; the lower part of a petal, united to the receptaculum.
- 634. Limbus, the limb; the superior dilated part or edge of a monopetallous corolla.
- 635. Lamina, the superior spreading parts of a polypetallous flower.

In respect to the number of petals, the flower is

636. Monopetala, dipetala, Tri— Polypetala, one, two, many petallous, &c.

In regard to equality, the corolla is

- 637. Æqualis, the petals being equal in size and figure.
- 638. Regularis, equal in the size, proportion, and figure of the parts.
- 639. Irregularis, when the parts of the limb differ in size, figure, and proportion.
- 640. Inæqualis, unequal, the parts corresponding in proportion, not in size.
- 641. Difformis, anomalous.

In respect to figure, the corolla is

- 642. Globosa, resembling a globe; globular, spherical.
- 643. Campanulata, bell-shaped; bellying out, without a tube.
- 644. Infundibuliformis, funnel-shaped; conical, arising from a tube.
- 645. Hyporcrateriformis, salver-shaped, rising from a tube, with a flat border.
- 646. Rotata, wheel-shaped; spreading flat, without any tube.

- 647. Cyathiformis, cup-shaped, cylindrical, widening a little at the top.
- 648. Urceolata, pitcher-shaped, bellying out in the middle, the top nearly closed.
- 649. Ringens, ringent, gaping with two distinct irregular lips.
- 650. Galea ringentes, the superior lip of a ringent corolla.
- 651. Labium, the inferior lip of a ringent corolla.
- 652. FAUX, or faucis, the opening of a monopetallous corolla, in that part of it where the tube terminates exteriorly.
- 653. The Faux, or faucis, is either
- 654. Clausa, closed, by little scales, meeting so as to form a kind of convex vault over the mouth of the tube.
- 655. Coarctata, narrower than the tube.
- 656. Coronata, straightened by small projecting points or tubercles.
- 657. Nuda, equal or wider than the tube, and open.
- 658. Rictus, is the opening between two lips.
- 659. Personata, ringent, but closed between the lips by the palate.
 - 660. Cruciata, cruciform, four equal petals, spreading out in the form of a cross.
 - 661. Patens, the claw, or lower part of the petal inserted under an acute angle into the receptaculum.
 - 662. Papilionacea, irregular, butter-fly shaped; the inferior petal is cymbiforme, keel-shaped, called (carina) the upper petal rises upwards, (vexillum;) the two lateral petals (Alæ) or wings, stand singly, being separated by the keel.

- 663. Rocacia, rose-like; four or more concave petals, disposed upon the receptacle in a ring; as in the wild rose.
- 664. Undulata, waved; the surface falling and rising, obtusely, in waves.
- 665. Plicata, plaited; folded like a fan.
- 666. Revoluta, revolute, rolled back or downwards.
- 667. Torta, twisted.

In respect to margin, the corolla is

668. Crenata, crenate; serrata, serrated; ciliata, ciliate.

In respect to surface, the corolla is

- 669. Villosa (269,) Tomentosa (270,) Sericea (271,) Pilosa (274,) &c.
- 670. Cristata, Barbata, &c.

In regard to proportion, the corolla is

- 671. Longissima, several times longer than the calyx.
- 672. Brevissima, not as long as the calyx.

In respect to situation, the corolla is

- 673. Supera, superior; having its base above the germ.
- 674. Infera, inferior; having the base below the germ.

In duration, the corolla is

- 675. Caduca, caducous; falling off as soon as it is expanded.
- 676. Decidua, deciduous; when the petals fall off with the rest of the flower.
- 677. Persistens, permanent; continuing till the fruit has attained maturity.
- 678. Marcescens, withering on the stalk without dropping off.

In respect to composition, the corolla is

679. Composita, compound; several florets in a common perianth, and sitting on the same receptacle.

680. Ligulata, ligulate or strap-shaped; the corollets of the flower flat at the exterior end, and tubular only at the base.

681. Tubulosa, the corollets of the flower tubular.

682. Radiata, the corollets of the disc tubulous, and the ray or circumference ligulate.

In regard to colour, the corolla is

- 683. Alba, white; purpurea, purple; violacea, violet; viridis, green; lutea, pale yellow; aurantia, orange yellow; coccinia, scarlet; fusca, brown; and their varieties.
- 684. NECTARIUM, "the meliferous part of the vegetable peculiar to the flower." It is
- 685. Proprium, proper; distinct from the petals, and the other parts of the flower.
- 686. Calcaratum, spur-shaped; a bent tube or horn, ending in a closed apex.
- 687. Singulare, differing in structure from the other parts of the flower.
- 688. Coronans, forming a leafy crown in the corolla.
- 689. Petalinum, petaline; inserted into the petals.
- 690. Calycinum, calycine; situated upon the calyx.
- 691. Stamineum, situated upon the stamens or anthers.
- 692. Pistillaceum inserted into the germen or pistil.
- 693. Receptaculum, inserted into the receptacle.
- 694. STAMEN, the organ designed for the preparation of the pollen.
- 695. FILAMENTUM, the parts elevating the authers, or male genital organs.

In figure, the filamenta, or filaments, are

- 696. Capillare, capillary; very slender, of the thickness of a hair.
- 697. Planum, flat; with parallel equal surfaces.
- 698. Cuneiforme, wedge-shaped.
- 699. Spirale, spiral; ascending in a spiral line.
- 700. Subulatum, awl-shaped.
- 701. Emarginatum, emarginate.
- 702. Reflexum, reflected; bent backwards.
- 703. Laciniatum, laciniated; cut into 2, 3, or 9 irregular lappets or jags.
- 704. Dentatum, with small teeth; toothed.
- 705. Mutilatum, mutilated; with only the rudiment of a filament.
- 706. Castratum, castrated; elevating a barren anther, or having none at all.

In point of insertion, the filaments are

- 707. Calyciopposita, opposite to the segments or leaflets of the calyx.
- 708. Alterna, alternate with the leaflets of the calyx.
- 709. Corollæ inserta (Corollina) inserted into the co-
- 710. Calyci inserta (Calycina) inserted into the calyx.
- 711. Receptaculo inserta (receptaculacea) inserted into the receptacle.
- 712. Nectario inserta (nectarina) nectarine; inserted into the nectary.
- 713. Stilo inserta (Gynandra) inserted into the stile, as of the class Gynandria.

In point of proportion, the filaments are

- 714. Æqualia, equal; all of the same length.
- 715. Inæqualia, unequal; some larger than others.
- 716. Conata, conate; united into one body.

- 717. Longissima, very long; exceeding the corolla in length.
- 718. Brevissima, very short; much shorter than the corolla.
- 719. Longitudine corollæ, of the same length as the corolla.
- 720. Longitudine calycis, of the same length as the calyx.

In respect to its surface, the filament is

- 721. Pilosum, hairy; villosum, villous; hirsutum, hirsute, &c.
- 722. Nectariferum, nectariferous; having nectaries affixed to it.
- 723. Membranaceus, membranous.

In respect to direction, the filament is

- 724. Erectum, upright.
- 725. Patens, spreading.
- 726. Patentiusculum, somewhat spreading.
- 727. Arcuatum, bowed; bent into a bow.
- 728. Conivens, converging; the top approaching the other filaments.
- 729. Reflexum, reflected.
- 730. Declinatum, declined.
- 731. Flaccidum, flaccid.
- 732. Assurgens, assurgent; bent upwards in a bow.
- 733. Recurvum, recurved; bent so as to have the arch downward.
- 734. Incurvum, incurved; bending inwards, &c.
- 735. ANTHERA, the part of the flower, big with pollen or farina, which when ripe it emits.

In regard to the number of anthers attached to a filament, they are

736. Unica, one only to each filament.

---- one only to three filaments.

- one only to five filaments.

737. Duæ, two to each filament.

738. Tres, three to each filament.

739. Quinque, five to each filament.

five to every three filaments.

In relation to figure, the anther is

740. Oblonga, oblong.

741. Globosa, globular.

742. Sagittata, arrow-shaped.

743. Angulata, angular.

744. Cornuta, horned, or in the form of a horn.

745. Bicornis, having two horns.

746. Linearis, linear; like a line.

747. Acuta, acute; terminated with an acute angle.

748. Acutiuscula, rather acute.

749. Cordata, heart-shaped.

750. Ovata, ovate, egg-shaped.

751. Hastata, hastate; like an arrow, with the sides bulging out.

752. Biloba, two-lobed.

753. Reniformis, kidney-shaped.

754. Bifida, bifid; two-cleft.

755. Bipartita, two-parted; divided nearly to the base.

756. Aristata, awned; ending in an awn, or sharp rigid point.

757. Setifer, bristle-bearing; ending in a bristle.

758. Rostrata, rostrate, or beaked; ending in a threadlike beak.

- 759. Truncata, truncated; cut off abruptly and transversely.
- 760. Obtusa, obtuse; blunt.
- 761. Emarginata, emarginate; terminated with a noth.
- 762. Acuminata, acuminate; terminating in an awlshaped point.
- 763. Furca, forked; divided at the end, the divisions diverging.

In point of direction, the anther is

- 764. Erecta, erect.
- 765. Rigida, rigid.
- 766. Patens, spreading.
- 767. Assurgens, assurgent; rising upwards, in a bow.
- 768. Inflexa, inflected.
- 769. Nutans, nodding.
- 770. Declinata, declined.
- 771. Pendula, pendulous; hanging down.
- 772. Incurva, incurved; bent inwards.
- 773. Conivens, converging; the anthers leaning towards each other.
- 774. Spiraliter contorta, twisted spirally.

In regard to insertion, the anther is

- 775. Sessilis, sessile; connected immediately with the filament, without a pedicle.
- 776. Versatilis, incumbens; incumbent, but freely moveable.
- 777. Adnata, adnate; connected to the stamen by the upper surface.
- 778. Distincta, distinct; not cohering with other authers.
- 779. Connatæ, connate; several anthers joined into one.
- 780. Cylindraceæ, cylindrical; formed into a cylinder or equal tubes.

- 781. Tubulatæ, tubular; coalescing so as to form a tube.
- 782. Cohærentes, cohering at the base, apex, &c.
- 783. Incumbens, fixed by the middle upon the filament.
- 784. Lateralis, lateral; connected by the whole side to the filament.

In respect to substance, the anther is

- 785. Membranacea, membranous.
- 786. Depressa, depressed; pulpy, the disc more flattened than the sides.
- 787. Compressa, compressed; pulpy, the sides more compressed than the disc.
- 788. Convexa, convex.
- 789. Plana, flat.
- 790. Sulcata, furrowed.
- 791. Transversim sulcata, transversely furrowed.
- 792. Longitudinaliter sulcata, longitudinally furrowed.
- 793. Subulata, subulate; leaner at the base, and attenuated towards the top.
- 794. Bilamellata, with two membranous plates.

In respect to measure, the anther is

- 795. Filamentis brevior, shorter than the filament.
- 796. Corolla brevior, shorter than the corolla.
- 797. Longitudine filamenti, of the same length as the filament.
- 798. Longior filamentis, longer than the filament.
- 799. Æquales, equal; of the same size as the others.
- 800. Longissima, very long; much longer than the filament.
- 801. Brevissima, very short; much shorter than the filament.

In respect to place, the anther is

- 802. Tecta, covered; concealed by a scale of the arch.
- 803. Inclusa, enclosed; situated within the throat of the corolla.
- 804. Nuda, naked; neither covered nor enclosed.

In respect to the cells and apertures of the anther, it is

- 805. Unilocularis, one-celled.
- 806. Bilocularis, two-celled.
- 807. Trilocularis, three-celled.
- 808. Bivalvis, two-valved.
- 809. Didyma, didymous; gibbous outwardly, with two protuberances.
- 810. Sterilis, barren; not forming pollen.
- 811. Deflorata, deflorate; having ejected the pollen.
- 812. Fæcunda, fertile, with pollen.
- 813. Apice dehiscens, opening at the top.
- 814. Latere dehiscens, opening at the side.

In respect to situation, the anthers are placed

- 815. Upon the top, sides, or base of the filaments; or upon the corolla, nectary, pistil or receptaculum.
- 816. POLEN, is the farina or powder of the flower, contained in the anthers, which moistened bursts, throwing out an imperceptible fecundating powder.
- 817. PISTILLUM, pistil; an organ connected to the fruit, for the reception of the fecundating pollen.
- 818. GERMEN, the germ, ovary, or seed-bud, is the rudiment of the abryotic fruit.
- In number, it varies from one to many. In point of figure, the germ is
- 819. Subrotundum, roundish.

- 820. Ovatum, ovate.
- 821. Oblongum, oblong.
- 822. Turbinatum, turbinate.
- 823. Conicum, in the form of a cone.
- 824. Lineare, linear.
- 825. Cordatum, heart-shaped.
- 826. Globosum, globular.
- 827. Fissum, cleft; bifidum, two-cleft; trifidum, three-cleft.
- 828. Partitum, divided almost to the base.
- 829. Angulatum, angular.
- 830. Didymum, gibbous, outwardly with two protuberances.
- 831. Compressum, compressed; sides more flattened than the disc.
- 832. Acutum, acute; terminated by an acute angle.
- 833. Rostratum, rostrate; ending in a thread-like bill.
- 834. Subulatum, awl-shaped; gradually growing thinner towards the point.

In respect to surface, the germ is

- 835. Scabrum, rough.
- 836. Villosum, villous; covered with soft hairs.
- 837. Imbricatum, imbricated; covered with scales, as if tiled.

In regard to its place, the germ is

- 838. Superum, superior; included in the corolla.
- 839. Inferum, inferior; placed beneath the corolla.

In respect to its insertion, the germ is

- 840. Sessile, having no pedicle to rest on.
- 841. Pedicellatum, pedicelled; standing on a pedicel.
- 842. Setæ insidens, sitting on a bristle.

In regard to its measure, the germ is

- 843. Minimum, in proportion to the corolla.
- 844. Longitudine staminum, of the same length as the stamens.
- 845. Longitudine calycis, of the same length as the calyx.
- 846. ——— nectarii, of the same length as the nectarium.
- 847. STYLUS, the part of the pistil which elevates the stigma from the germ. It varies in number.

In point of proportion, the style is

- 848. Longissimus, very long, in respect to the stamens.
- 849. Brevissimus, very short.
- 850. Longitudine staminum, as long as the stamens.
- 851. Crassitie staminum, of the thickness of the stamens.
- 852. Crassus, thick; tenuis, thin; in respect to the stamina.

With regard to its division, the style is

- 853. Simplex, Bifidus, 4 fidus, 5 fidus, (212.)
- 854. Dichotomus, continually divided into two parts, (101.)

In respect to figure, the style is

- 855: Teres, columnar.
- 856. Filiformis, thread-like.
- 857. Cylindricus, cylindrical.
- 858. Capillaris, capillary; fine, like a hair.
- 859. Clavatus, club-shaped; thicker at the upper end.
- 860. Subulatus, subulate.
- 861. Alatus, winged.
- 862. Tetragonus, four-cornered, (57.)
- 863. Ensiformis, sword-shaped, (302.)
- 864. Pubescens, covered with pubescence.
- 865. Villosus, villous.

In respect to situation, the style is

866. In apice germinis, placed at the top of the germ.

867. Ad latus germinis, at the side of the germ.

In duration, the style is

868. Persistens, permanent; remaining until the fruit is ripe.

869. Deciduus, deciduous; falling with the other parts

of the flower.

870. STIGMA, the summit of the pistil, moistened with a humour, destined to receive the pollen, and to transmit its influence to the germ. The number is Unicum, Duo, Tria, Quatuor, &c.

In respect to division, the stigma is

871. Simplex, simple.

872. Fissum, cleft; bifidum, two-cleft; trifidum, three-cleft, &c.

873. Partitum, divided deeply.

874. Lobatum, lobed; bilobum, bilobed.

In point of figure, the stigma is

875. Capitatum, approaching in form to the figure of a globe.

876. Globosum, globular.

877. Conicum, conical.

878. Ovatum, ovate.

879. Obtusum, obtuse.

880. Truncatum, truncated.

881. Oblique depressum, obliquely depressed.

882. Emarginatum, emarginate.

883. Planum, flat.

884. Reniforme, kidney-shaped.

885. Orbiculatum, orbicular.

- 886. Peltatum, peltate.
- 887. Coroniforme, horn-shaped.
- 888. Cruciforme, cruciform; in the form of a cross.
- 889. Stellatum, stellated.
- 890. Uncinatum, the top furnished with a claw.
- 891. Canaliculatum, grooved.
- 892. Concavum, concave.
- 893. Umbilicatum, concavely orbicular.
- 894. Plicatum, folded or plaited.
- 895. Radiatum, marked with striated rays, diverging from the centre.
- 896. Angulatum, angular.
- 897. Striatum, striated or streaked.
- 898. Plumosum, feathery.
- 899. Pubescens, covered with pubescens, or hairs.
- 900. Filiforme, thread-like.
- 901. Capillare, capillary; very slender.
- 902. Convolutum, coiled or twisted.
- 903. Revolutum, revolute.
- 904. Flexum sinistrorsum, bent to the left.
- 905. Flexum dextrorsum, bent to the right.
- 906. Barbatum, bearded.
- 907. Imberbe, beardless.

In respect to measure, the stigma is

908. Longitudine styli, as long as the style.

In respect to expansion, the stigma is

- 909. Fimbriato-crispum, fimbriate curled; fringed, (286.)
- 910. Foliaceum, foliaceous, leafy, (406.)
- 911. Cucullatum, cowled, (283.)

In respect to duration, the stigma is

912. Persistens, permanent; remaining until the fruit is ripe.

913. Marcescens, withering; remaining, but becoming

withered.

- 914. PERICARPIUM, a viscus, or organ, gravid with seeds, which it discharges when they are ripe; called the seed-vessel or pericarp, by the English botanists.
- 915. CAPSULA, a membranaceous hollow pericarp, or seed-vessel, which opens spontaneously in some determinate way, or different in different vegetables.

In respect to figure, the capsula is

916. Turbinata, turbinate.

917. Inflata, inflated.

918. Globosa, globular.

919. Didyma, twin or didymous.

920. Scrotiformis, purse-like; elevated with two protuberances.

921. Cylindrica, cylindrical.

922. Columnaris, columnar; cylindrical and capitate.

923. Ovata, ovate.

924. Subrotunda, roundish.

925. Oblonga, oblong.

926. Obcordata, obcordate; inversely cordate.

927. Obtusa, obtuse.

928. Acuminata, acuminate.

929. Ventricosa, ventricose; oblong and convex.

930. Compressa, compressed.

931. Membranacea, membranous,

932. Elastica, elastic.

933. Triquetra, tetragona, &c.

934. Trisulca, 4-sulca, &c. three-furrowed, four-furrowed, &c.

935. Quinquedentata, five-toothed.

936. Coronata, crowned; the extremity furnished with leaflets, digested into the form of a crown.

937. Circumscissa, cut round; bursting all round horizontally.

938. Articulata, jointed; intercepted by joints.

939. Coriacea, coriaceous; resembling leather.

940. Carnosa, fleshy.

941. Lignosa, woody.

942. VALVULA, the outer coat or shell of a capsule, or any other species of pericarp, divide into one or more parts; these parts are called valves; and

According to the number of valves, the capsule is

943. Bivalvis, two-valved; splitting into two pieces.

944. Trivalvis, three-valved; opening with three valves or pieces.

945. Quadrivalvis, 5-valvis, &c. 4, 5, &c. valved.

946. LOCUMENTA, the chambers or hollows in the capsule, for the reception of the seeds.

In respect to the number of these chambers, or cells, the capsule is

947. 1-locularis, 2-locularis, 3-locularis, &c. one-celled, two-celled, &c.

948. DISSEPIMENTUM, the partition, or side, which divides the capsule internally into cells. It is either

949. Dissepimentum parallelum, parallel; or

950. Dissepimentum contrarium, not parallel.

- 951. COLUMELLA, or little pillar; it is the central pillar in a capsule, which connects the several internal partitions, or dissepimenta with the seed.
- 952. SILIQUA, that species of seed-vessel or pericarp called pod; it is always two-valved, having the seeds fixed along both sutures.

In figure, the pod or silique is

953. Compressa, compressed or flat.

- 954. Torosa, torose; swelling out into knobs, like veins and muscles.
- 955. Torulosa, swelling as the preceding, but in a smaller degree.
- 956. Articulata, jointed; intercepted with tight joints.
- 957. DISSEPIMENTUM, or partition of the pod, is either
- 958. Parallelum, parallel; approaching the valves in their breadth and transverse diameter.
- 959. Transversum angustius, narrower than the valves.
- 960. LEGUMEN, legume; a pericarp of two valves, in which the seeds are fixed along one of the sutures only.

In regard to figure and substance, the legume is

- 961. Subrotundum, roundish.
- 962. Ovatum, ovate.
- 963. Oblongum, oblong.
- 964. Lineare, linear.
- 965. Rhombeum, rhomboid.
- 966. Rhomboidale, in the form of a rhomboid.
- 967. Lunulatum, crescent-shaped.
- 968. Muticum, without a point, awnless.
- 969. Obtusum, obtuse.

- 970. Acuminatum, acuminate.
- 971. Spina mucronatum, mucronate, with a thorn.
- 972. Venoso-reticulatum, veins disposed into net-work.
- 973. Venoso-varicosum, venose-varicose; veins dilated into varices.
- 974. Striatum, striated.
- 975. Villosum, villous.
- 976. Tuberculatum, tubercled; covered with cartilaginous points.
- 977. Scabrum, rough.
- 978. Planum, flat.
- 979. Membranaceum, membranous.
- 980. Foliaceum, leafy.
- 981. Diaphanum, diaphanous.
- 982. Coriaceum, coriaceous.
- 983. Gibbum, gibbous.
- 984. Teres, columnar.
- 985. Cylindricum, cylindrical.
- 986. Alatum, winged.
- 987. Angulis membranaceus, with membranous angles.
- 988. Compressum, compressed.
- 989. Nodosum, knotty; elevated in knots.
- 990. Inflatum, inflated.
- 991. Turgidum, turgid; "somewhat in shape and form like a blown bladder."
- 992. Torosum, or moniliforma, torose; gibbous, with protuberances placed linearly.
- 993. Farctum, stuffed; full of a pulpy substance.
- 994. Pulposum, pulpy; filled with pulp.
- 995. Carnosum, fleshy; filled with a fleshy substance.
- 996. Lignosum, woody.
- 997. Subulatum, subulate.
- 998. Falcatum, sickle-shaped.
- 999. Sessile, sessile.

1000. Pedicellatum, elevated on a pedicel.

1001. Rectum, straight; without a bent.

1002. Strictum, stiff and straight.

1003. Adscendens, adscending with the point.

1004. Incurvatum, incurved.

1005. Arcuatum, bowed; bent like a bow.

1006. Inflexum, inflected.

1007. Reflexum, reflected.

1008. Revolutum, revolute.

In regard to its measure, the legume is

- 1009. Longissimum, very long, with respect to the corolla.
- 1010. Longum, long.
- 1011. Maximum, very large.
- 1012. Minimum, very small.
- 1013. Latissimum, very broad.

In regard to its structure, the legume is

1014. Articulatum, jointed.

1015. Uniloculare, biloculare, &c. unilocular, bilocular, (947.)

1016. Loculis intus longitudinaliter digestis, the cells digested longitudinally within.

1017. Evalvis, having no valves.

- 1018. Isthmus interceptum, divided transversely within into different cells.
- 1019. FOLLICULUS, "or follicle, a one-valved seed-vessel or pericarp, opening longitudinally only on one side, and having its seeds loose within; that is, not fixed to the suture." The contortæ are chiefly furnished with this species of pericarp.

- 1020. DRUPA, or drupe, a valveless pericarp, containing a nut, in which there is a kernel. It is
- 1021. Succulenta, containing a humour; or succulent as the cherry.
- 1022. Sicca, dry, as in the almond.
- 1023. **POMUM**, or apple, a filled-up valveless pericarp, containing a capsule.

In figure, the pomum is

1024. Oblongum, oblong; ovatum, ovate; subrotundum, roundish, &c.

With respect to the cells, this species of pericarp is 1025. 3-9 locularis, from three to nine-celled, &c.

- 1026. BACCA, or berry, a succulent or pulpy pericarp, without valves, containing naked seeds.
- 1027. Nidulantia, the seeds scattered through the pulp.

According to the number of seeds in each berry, it is 1028. Monosperma, one-seeded; disperma, two-seeded,

- 1028. Monosperma, one-seeded; disperma, two-seeded, &c.
- 1029. STROBILUS, a pericarp formed from the Ament by the induration of the scales.
- 1030. The THECA "is a double involucre of the seed, the exterior covering bursting open; the interior one, which is either pulpy, membranaceous, hairy or woolly, involving the seed."
- 1031. The GRANATUM, "or granate, is also a double involucre, one of the covers being of a corky or coriaceous texture, the other succulent."
- 1032. The CYSTA, "or cyst, consists of three covers, one of which is membranaceous, another succu-

lent or fleshy, and the third and most interior also membranaceous or brittle."

- 1033. The SCRINUM, "or scrine, is also composed of three covers, viz. an exterior one, which is of a woody texture, and does not split at all; a middle one, which is pulpy; and an interior one, membranaceous, enveloping the seed."
- 1034. SEMEN, the seed; the rudiment of the new plant.
- 1035. HILUM, the external cicatrice of the seed, or the scar of the umbelical chord of some seeds, where they adhere to the pericarp.
- 1036. CORCULUM, the embryo of the new plant in the seed.
- 1037. Plumula, the scaly part of the corculum rising upwards.
- 1038. Rostellum, radicula or radicle; the simple descending part of the corculum.

The accessary parts of the fruits and seeds are

1039. *PAPPUS*, or Aigrette, a feathery or hairy crown, with which some seeds are furnished, for the purpose of being more readily dispersed.

The pappus is either

1040. Sessilis, sessile; when the down is placed immediately on the seed.

1041. Stipitatus, stipitate; supported on a thread called stipe, and elevated considerably above the seed.

The species of pappus are

1042. Capillaris, capillary; the hairs of the pappus being undivided.

- 1043. Plumosus, feathery; branched like a feather.
- 1044. Aristatus, awned; having one or more short rigid rays.
- 1045. Stellatus, stellate, consisting of five filiform spreading rays.
- 1046. Spinosus, thorny; having pungent rays.
- 1047. Setaceus, differing from the capillary, in being more rigid.
- 1048. Ciliatus, ciliate; between setaceous and feathery.
- 1049. Lanatus, woolly, in which the vertex of the seed is crowned with a white ring, formed of dense short wool.

In regard to duration, the pappus is

- 1050. Persistens, permanent; continuing with the seed.
- 1051. Caducus, s. fluxilis, remaining on the seed but a short time.
- 1052. CAUDA, the tail; a slender stipe or thread, proceeding from the vertex of the seed.
- 1053. Ala, or wing, a membranous expansion, fixed to the seed.

Seeds furnished with wings are

- 1054. Unialata, one-winged; trialata, three-winged; quadrulata, four-winged.
- 1055. The Cresta, or crest, is another appendage of some seeds. It is narrower, and less flexible than the wing, and always placed on the back of seeds or fruits.
- Besides the semen or seed properly so called, there are two other terms referred to this head, Nux and Propago:
- 1056. Nux, nut, a seed covered with a shell.

In regard to its integuments, the nut is

- 1057. Nuda, naked.
- 1058. Glabra, smooth.
- 1059. Splendens, shining.
- 1060. Rugosa, wrinkled.
- 1061. Subpubescens, somewhat pubescent.
- 1062. Corticata, covered with a rind.
- 1063. Involucrata, involucred; as chestnut, hazel, &c.

In regard to number of cells, the nut is

- 1064. Unilocularis, bilocularis, one-celled, two-celled.
- 1065. PROPAGO is the name of the seed of mosses.
- 1066. RECEPTACULUM, or receptacle, is the base by which the different parts of the fructification are connected.

The following are the species of receptacle:

- 1067. Receptaculum proprium, proper or peculiar receptacle, belonging to one fructification only.
- 1068. Receptaculum fructificationis, common both to the flower and fruit.
- 1069. Receptaculum floris, supporting the parts of the flower only, without the germ.
- 1070. Receptaculum fructus, receptacle of the fruit, (as in Enothera.)
- 1071. Receptaculum seminum, receptacle of the seed; the base to which the seeds are fastened.
- 1072. Receptaculum commune, connecting several distinct flowers.

The receptacle is

- 1073. Punctatum, dotted; sprinkled with hollow points.
- 1074. Pilosum, hairy; having hairs between the florets, (carduus.)

- 1075. Paleaceum, chaffy; the florets separated by intermediate scales.
- 1076. Nudum, naked; destitute of dots, hairs, or scales.
- 1077. Planum, flat.
- 1078. Convexum, convex.
- 1079. Conicum, conical.
- 1080. Subulatum, subulate, or awl-shaped.
- 1081. Alveolatum, alveolate, or honey-combed.
- 1082. COMPOSITUS Flos, with an expanded entire receptacle, the florets being sessile.
- 1083. AGGREGATUS Flos, with a dilated receptacle; the florets being sub-sessile.
- 1084. UMBELLA, a receptacle elongated into filiform proportionate peduncles from the same centre.

The umbel is either

- 1085. Simplex, simple, undivided.
- 1086. Composita, compound; each peduncle bearing another little umbel.
- 1087. Prolifera, proliferous; super-decompound.
- 1088. Concava, concave at the top.
- 1089. Fastigata, fastigate; rising gradually, like the roof of a house.
- 1090. Convexa, convex.
- 1091. Erecta, erect.
- 1092. Nutans, nodding.
- 1093. Terminalis, terminal.
- 1094. Axillaris, axillary.
- 1095. Oppositifolia, opposite to a leaf.
- 1096. Nutans, nodding.
- 1097. CYMA, or Cyme, (493.)

The cyme is

- 1098. Bracteata, bracteate; furnished with bractes.
- 1099. Nuda, naked; without bractes.

- 1100. RACHIS, a filiform receptacle, connecting the flowrets into a spike.
- 1101. SPADIX, the receptacle of palms, and other plants proceeding from that species of calyx called Spath.

The spadix is, according to the number of flowers,

1102. Uniflorus, one-flowered; biflorus, two-flowered; multiflorus, many-flowered.

In point of division, it is

1103. Ramosus, branched.

1104. Simplex, simple, undivided.

- 1105. GEMMATIO is the miniature form of the plant, elevated above the root, before it is evolved.
- 1106. BULBUS, the hybernaculum, or winter-quarters of the infant plant.

In composition, it is

- 1107. Solidus, solid and fleshy, undivided within.
- 1108. Tunicatus, consisting of concentric layers or coats.
- 1109. Squamatus, tiled with scales.
- 1110. Caulinus, fixed upon the stem.
- 1111. GEMMA, or bud, a hybernaculum, sitting upon the stem and branches, including the epitome of the future leaves of the plant.

In regard to the contents of the bud, it is

- 1112. Foliaris, including leaves only.
- 1113. Floralis, including flowers only.
- 1114. Communis, including both the leaves and flowers.

- 1115. VERNATIO, the manner in which the leaves are disposed among the buds.
- 1116. PLACENTATIO, the disposition of the cotyledons, during the germination of the seed.
- 1117. COTYLEDON, the first leaf of the germinating seed.

In point of number of cotyledons, seeds or plants are

- 1118. Acotyledones, having no cotyledons.
- 1119. Monocotyledones, having one seminal leaf.
- 1120. Dicotyledones, having two cotyledons, or seminal leaves.
- 1121. Polycotyledones, those seeds which have more than two cotyledons.
- 1122. GERMINATIO, the time when seeds, placed in a proper medium, produce their cotyledons.
- 1123. FRONDESCENTIA, the time when each species of plants puts forth its young leaves.
- Character of the classes, and their orders, according to the sexual method of Linnæus.
- 1124. MONANDRIA, this class embraces those plants which have hermaphrodite flowers, with only one stamen or anther. Its orders are two:
 - 1. Monogynia, one female organ or style.
 - 2. Digynia, two styles.
- 1125. DIANDRIA, two males in a hermaphrodite flower. This class has three orders.
 - 1. Monogynia, one female organ or style.

- 2. Digynia, two female organs.
- 3. Trigynia, three styles.
- 1126. TRIANDRIA, the third class, has three males in a hermaphrodite flower. It has three orders:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Trigynia, three styles.
- 1127. TETRANDRIA, fourth class, four equal stamens in a hermaphrodite flower. It has three orders:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Trigynia, three styles.
- 1128. PENTANDRIA, fifth class, five equal stamens in a hermaphrodite flower. It has six orders:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Trigunia, three styles.
 - 4. Tetragynia, four styles.
 - 5. Pentagynia, five styles.
 - 6. Polygynia, many stiles.
- 1129. HEXANDRIA, sixth class; it has six equal stamens in a hermaphrodite flower. Its orders are five in number:
 - 1. Monogynia, one style.
 - 2. Dygynia, two styles.
 - 3. Trigynia, three styles.
 - 4. Tetragynia, four styles.
 - 5. Polygynia, many styles.

- 1130. HEPTANDRIA, seventh class, seven equal stamens in a hermaphrodite flower. It has four orders:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Tetragynia, four styles.
 - 4. Heptagynia, seven styles.
- 1131. OCTANDRIA, eighth class, eight equal stamens in a hermaphrodite flower. It has four orders:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Trigynia, three styles.
 - 4. Tetragynia, four styles.
- 1132. ENNEANDRIA, ninth class, nine equal stamens in a hermaphrodite flower. It has three orders:
 - 1. Monogynia, one style.
 - 2. Trigynia, three styles.
 - 3. Hexagynia, six styles.
- 1133. DECANDRIA, tenth class, ten equal males in a hermaphrodite flower. It has six orders:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Trigynia, three styles.
 - 4. Tetragynia, four styles.
 - 5. Pentagynia, five styles.
 - 6. Decagynia, ten styles.
- 1134. DODECANDRIA, eleventh class; has from twelve to nineteen stamens in a hermaphrodite flower, and is subdivided into five orders.
 - 1. Monogynia, one style.

- 2. Digynia, two styles.
- 3. Trigynia, three styles.
- 4. Pentagynia, five styles.
- 5. Dodecagynia, from twelve to nineteen styles.
- 1135. ICOSANDRIA, twelfth class; commonly twenty, but often more stamens, inserted into the sides of the calyx of a hermaphrodite flower. Its orders are five:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Trigynia, three styles.
 - 4. Tetragynia, four styles.
 - 5. Polygynia, many styles.
- 1136. POLYANDRIA, thirteenth class; from twenty to a thousand stamens inserted into the receptaculum of a hermaphrodite flower. It is subdivided into seven orders:
 - 1. Monogynia, one style.
 - 2. Digynia, two styles.
 - 3. Trigynia, three styles.
 - 4. Tetragynia, four styles.
 - 5. Pentagynia, five styles.
 - 6. Hexagynia, six styles.
 - 7. Polygynia, many styles.
- 1137. DIDYNAMIA, fourteenth class; four stamens, of which two are long, and two short, in a hermaphrodite ringent flower. It has two orders:
 - 1. Gymnospermia, with naked seeds.
 - 2. Angiospermia, with seeds inclosed in a seedvessel, or pericarp.

- of which four are long, and two opposite ones short, in a cruciate hermaphrodite flower, the pericarp or seed-vessel being a silique, or silicle, and the nectarium generally seated on short filaments. It is divided into two orders:
 - 1. Siliculosa, the pericarp being a little roundish pouch or pod.
 - 2. Siliquosa, a long thin pericarp, as in mustard.
- 1139. MONODELPHIA, sixteenth class, or class of one brotherhood; the stamens or male organs, in a pentapetalous flower, united into one body by their filaments, the receptacle being commonly columnar, and the seeds kidney-shaped. It is subdivided into nine orders, founded upon the number of stamens or anthers:
 - 1. Triandria, three stamens or anthers.
 - 2. Pentandria, five stamens or anthers.
 - S. Heptandria, seven stamens or anthers.
 - 4. Octandria, eight stamens or anthers.
 - 5. Enneandria, nine stamens or anthers.
 - 6. Decandria, ten stamens or anthers.
 - 7. Endecandria, eleven stamens or anthers.
 - 8. Dodecandria, twelve stamens or anthers.
 - 9. Polyandria, many stamens or anthers.
 - venteenth class; "This class contains those hermaphrodite flowers, which have their stamens united below into two sets of cylindrical filaments." It is subdivided into four orders, founded on the number of the stamens, considered as

- 1. Pentandria, five males.
- 2. Hexandria, six males.
- 3. Octandria, eight males.
- 4. Decandria, ten males.
- 1141. POLYDELPHIA, eighteenth class, or class of many brotherhoods; the stamens collected by their filaments into three or more distinct bundles. It has four orders:
 - 1. Pentandria, five males.
 - 2. Dodecandria, twelve males.
 - 3. Icosandria, twenty males.
 - 4. Polyandria, many males.
- 1142. SYNGENESIA, confederate males; nineteenth class; the anthers in this class are united into a cylinder in a compound flower, whilst the filaments by which they are supported are separate and distinct. It is subdivided into the following five orders:
 - 1. Polygamia æquales, here the florets are all hermaphrodite, that is, furnished with both stamens and style.
 - 2. Polygamia Spuria vel Superflua, the florets in the centre or disc are hermaphrodite, whilst those of the ray or circumference are simply female flowers.
 - 3. Polygamia frustranea, "here the hollow florets in the disc or centre of the flower are supplied with both stamens and style, while the flat florets in the radius or circumference are neuter, that is, destitute of stamens and style."
 - 4. Polygamia necessaria, the florets of the disc being furnished with male organs, whilst those of the ray contain the female organs.

- 5. Polygamia segregata, many hermaphrodite florets, each furnished with its own calyx, contained in one common perianth or calyx.
- 1143. GYNANDRIA, twentieth class; feminine males; the stamens in this class are inserted into the style, and not into the receptaculum. The orders are founded upon the number of stamens:
 - 1. Diandria, two males.
 - 2. Triandria, three males.
 - S. Tetrandria, four males.
 - 4. Pentandria, five males.
 - 5. Hexandria, six males.
 - 6. Octandria, eight males.
 - 7. Decandria, ten males.
 - 8. Dodecandria, twelve to nineteen males.
 - 9. Polyandria, many males.
- the female and male organs seated upon the same plant, but in different flowers. The following are the orders:
 - 1. Monandria, one male.
 - 2. Diandria, two males.
 - 3. Triandria, three males.
 - 4. Tetrandria, four males.
 - 5. Pentandria, five males.
 - 6. Hexandria, six males.
 - 7. Heptandria, seven males.
 - 8. Polyandria, many males.
 - 9. Monodelphia, one brotherhood.
 - 10. Syngenesia, confederated males.
 - 11. Gynandria, feminine males.

- 1145. DIECIA, two houses; twenty-second class; the male and female flowers seated on distinct individuals of the same species. It has the following orders:
 - 1. Monandria, one male.
 - 2. Diandria, two males.
 - 3. Triandria, three males.
 - 4. Tetrandria, four males.
 - 5. Pentandria, five males.
 - 6. Hexandria, six males.
 - 7. Octandria, eight males.
 - 8. Enneandria, nine males.
 - 9. Decandria, ten males.
 - 10. Dodecandria, twelve to nineteen males.
 - 11. Icosandria, inserted into the calyx.
 - 12. Polyandria, many males.
 - 13. Monodelphia, one brotherhood.
 - 14. Syngenesia, confederated males.
 - 15. Gynandria, feminine males.
- 1146. POLYGAMIA, twenty-third class; this class embraces those plants, the different individuals of which bear hermaphrodite flowers, and likewise male or female flowers, or both. It is divided into three orders:
 - 1. Monœcia.
 - 2. Diœcia.
 - 3. Triœcia.
- 1147. CRYPTOGAMIA, twenty-fourth class, or class of clandestine marriages; it embraces those vegetables in which the parts of fructification are concealed, either from their minuteness or pecu-

liar situation. It is subdivided by Linnæus into these four orders:

- 1. Filices.
- 2. Musci.
- 3. Algæ.
- 4. Fungi.

THE END.

ERRATA.

No. 69. For impricatus, read, imbricatus.

No. 138. For the branches, read, the leaves.

No. 319. For laterally from one foot-stalk, read, from both sides of a common foot-stalk.

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